

Fig. 1. Measured ocean broadband albedo (left) and aerosol optical depth (AOD) (right) on two clear days. Wind speeds during both days were small and similar, but the AODs were very different. These measurements show that increasing AOD increases the albedo when the sun is high, but decreases albedo when the sun is low.

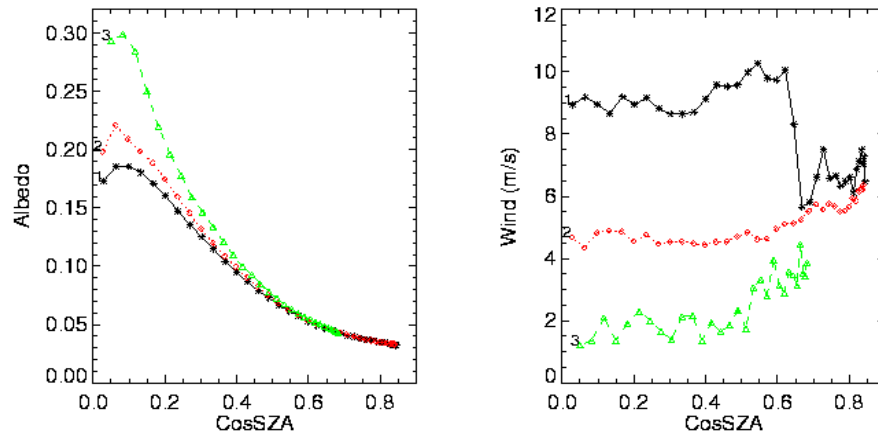


Fig. 2. Measured ocean albedo (left) and wind speed (right) on three clear days. AODs in the three days were small and similar, but wind speeds were different. These results indicate that the wind speed has small effect on albedo at high sun, but its effect increases as SZA increases.

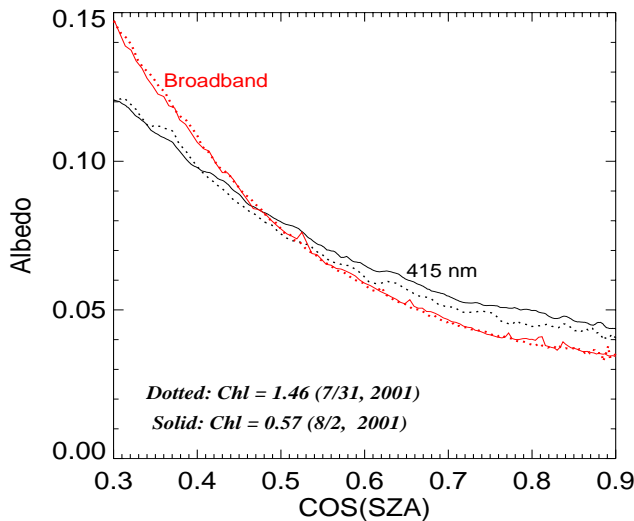


Fig. 3. Measured 415 nm albedo (black) and broadband albedo (red) on two clear days with different values of Chl. With small SZA, the spectral albedo at 415 nm is smaller for the day with higher Chl, because high Chl causes more absorption. As SZA increases, the Chl effect on 415 nm albedo diminishes because the sub-surface contribution falls, while the effect of Fresnel reflection from surface becomes dominant. The differences in broadband albedos between the two days are much smaller, however, because phytoplankton particles increase albedo in the green and decrease it in the blue.